

IN THE CLAIMS

Please amend the claims as follows:

Claims 1-8 (Cancelled):

Claim 9 (Withdrawn): A process for the fermentative preparation of a L-amino acids, comprising:

- a) fermentation of the coryneform bacteria which produce the desired L-amino acid and in which at least the metF gene or nucleotide sequences which code for it are enhanced;
- b) concentration of the L-amino acid in the medium or in the cells of the bacteria, and
- c) isolation of the L-amino acid.

Claim 10 (Withdrawn): The process as claimed in claim 9, wherein bacteria in which further genes of the biosynthesis pathway of the desired L-amino acid are additionally enhanced are employed.

Claim 11 (Withdrawn): The process as claimed in claim 9, wherein bacteria in which the metabolic pathways which reduce the formation of the desired L-amino acid are at least partly eliminated are employed.

Claim 12 (Withdrawn): The process as claimed in claim 9, wherein a strain transformed with a plasmid vector is employed, and the plasmid vector carries the nucleotide sequence which codes for the metF gene.

Claim 13 (Withdrawn): The process as claimed in claim 9, wherein the expression of the polynucleotide(s) which code(s) for the metF gene is enhanced, in particular over-expressed.

Claim 14 (Withdrawn): The process as claimed in claim 9, wherein the catalytic properties of the enzyme encoded by metF are increased.

Claim 15 (Withdrawn): The process as claimed in claim 9, wherein for the preparation of L-methionine, coryneform microorganisms have one or more enhanced genes selected from the group consisting of

- 15.1 the lysC gene which codes for a feed back resistant aspartate kinase,
- 15.2 the gap gene which codes for glycerolaldehyde 3-phosphate dehydrogenase,
- 15.3 the pgk gene which codes for 3-phosphoglycerate kinase,
- 15.4 the pyc gene which codes for pyruvate carboxylase,
- 15.5 the tpi gene which codes for triose phosphate isomerase,
- 15.6 the metA gene which codes for homoserine O-acetyltransferase,
- 15.7 the metB gene which codes for cystathionine gamma-synthase,
- 15.8 the aecD gene which codes for cystathionine gamma-lyase,
- 15.9 the glyA gene which codes for serine hydroxymethyltransferase,
- 15.10 the metY gene which codes for O-acetylhomoserine sulfhydrylase.

Claim 16 (Withdrawn): The process as claimed in claim 9, wherein for the preparation of L-methionine, the coryneform microorganisms have one or more attenuated genes selected from the group consisting of

- 16.1 the thrB gene which codes for homoserine kinase,

- 16.2 the *ilvA* gene which codes for threonine dehydratase,
- 16.3 the *thrC* gene which codes for threonine synthase,
- 16.4 the *ddh* gene which codes for meso-diaminopimelate D-dehydrogenase,
- 16.5 the *pck* gene which codes for phosphoenol pyruvate carboxykinase,
- 16.6 the *pgi* gene which codes for glucose 6-phosphate isomerase,
- 16.7 the *poxB* gene which codes for pyruvate oxidase. 17. The process of claims 9, wherein microorganisms of the species *Corynebacterium glutamicum* are employed.

Claim 17 (Withdrawn): The process of Claim 9, wherein microorganisms of the species *Corynebacterium glutamicum* are employed.

Claim 18 (Withdrawn): The process as claimed in claim 17, wherein the *Corynebacterium glutamicum* strain ATCC13032/pCREmetF is employed.

Claim 19 (Withdrawn): A process for preparing an L-methionine-containing animal feedstuffs additive, comprising:

- a) culture and fermentation of an L-methionine-producing microorganism in a fermentation medium;
- b) removal of water from the L-methionine-containing fermentation broth (concentration);
- c) removal of an amount of 0 to 100 wt.% of the biomass formed during the fermentation; and
- d) drying of the fermentation broth obtained according to b) and/or c) to obtain the animal feedstuffs additive in the desired powder or granule form.

Claim 20 (Withdrawn): The process as claimed in claim 19, wherein microorganisms are employed in which further genes of the biosynthesis pathway of L-methionine are additionally enhanced.

Claim 21 (Withdrawn): The process as claimed in claim 20, wherein microorganisms are employed in which the metabolic pathways which reduce the formation of L-methionine are at least partly eliminated.

Claim 22 (Withdrawn): The process as claimed in claim 20, wherein expression of the polynucleotide(s) which code(s) for the *metF* gene is enhanced.

Claim 23 (Withdrawn): The process of claim 19, wherein microorganisms of the species *Corynebacterium glutamicum* are employed.

Claim 24 (Withdrawn): The process as claimed in claim 23, wherein the *Corynebacterium glutamicum* strain ATCC13032/pCREmetF is employed.

Claim 25 (Withdrawn): The process as claimed in claimed claim 19, wherein one or more of the following steps are additionally carried out:

- e) addition of one or more organic substances, including L-methionine and/or D-methionine and/or the racemic mixture D,L-methionine, to the products obtained according to b), c) and/or d);

- f) addition of auxiliary substances selected from the group consisting of silicas, silicates, stearates, grits and bran to the substances obtained according to b) to e) for stabilization and to increase storability; or
- g) conversion of the substances obtained according to b) to f) into a form stable in rumen, by coating them with film-forming agents.

Claim 26 (Withdrawn): The process as claimed in claim 19 or 25, wherein a portion of the biomass is removed.

Claim 27 (Withdrawn): A process as claimed in claim 26, wherein essentially 100% of the biomass is removed.

Claim 28 (Withdrawn): The process as claimed in claim 19 or 25, wherein the water content is up to 5 wt.%.

Claim 29 (Withdrawn): The process as claimed in claim 28, wherein the water content is less than 2 wt.%.

Claim 30 (Withdrawn): The process as claimed in claim 25, wherein the film-forming agents are metal carbonates, silicas, silicates, alginates, stearates, starches, gums or cellulose ethers.

Claim 31 (Withdrawn): An animal feedstuffs additive prepared as claimed in claim 19.

Claim 32 (Withdrawn): An animal feedstuffs additive as claimed in claim 31, which comprises 1 wt.% to 80 wt.% L-methionine, D-methionine, D,L-methionine or a mixture thereof, based on the dry weight of the animal feedstuffs additive.

Claim 33 (Withdrawn): A process for obtaining RNA, cDNA or DNA in order to isolate nucleic acids, or polynucleotides or genes which code for methylene tetrahydrofolate reductase or have a high similarity to the sequence of the methylene tetrahydrofolate reductase gene, which comprises employing the polynucleotide sequences as claimed in claim 1 as hybridization probes.

Claim 34 (Currently Amended): An isolated polynucleotide comprising a polynucleotide selected from the group consisting of:

- a) a polynucleotide which encodes a polypeptide which is at least 90% identical to the amino acid sequence of SEQ ID No.: 2, and
- b) a polynucleotide that encodes a polypeptide which has methylene tetrahydrofolate reductase activity, wherein said polypeptide ~~which encodes a fragment of a polypeptide which is at least 90% identical to a fragment of SEQ ID No: 2 and which has methylene tetrahydrofolate reductase activity;~~
~~wherein said isolated polynucleotide encodes a polypeptide having methylene tetrahydrofolate reductase activity.~~

Claim 35 (Currently Amended): The isolated polynucleotide of Claim 34 which encodes a polypeptide which is at least 90% identical to the amino acid sequence of SEQ ID No.: 2.

Claim 36 (Currently Amended): The isolated polynucleotide of Claim 34 which encodes a polypeptide which is at least 95% identical to the amino acid sequence of SEQ ID No.: 2.

Claim 37 (Previously Presented): The isolated polynucleotide of Claim 34 which encodes the polypeptide of SEQ ID No: 2.

Claim 38 (Currently Amended): The isolated polynucleotide of Claim 34, which encodes ~~a fragment of a polypeptide~~ that has methylene tetrahydrofolate reductase activity which is at least 90% identical to a fragment of SEQ ID No: 2 ~~that has methylene tetrahydrofolate reductase activity.~~

Claim 39 (Currently Amended): The isolated polynucleotide of Claim 34, which encodes a polypeptide which has methylene tetrahydrofolate reductase activity and which is a fragment of the polypeptide of SEQ ID No: 2 ~~that has methylene tetrahydrofolate reductase activity.~~

Claim 40 (Previously Presented): The isolated polynucleotide of Claim 34 which is RNA.

Claim 41 (Previously Presented): The isolated polynucleotide of Claim 34 which is DNA.

Claim 42 (Previously Presented): The isolated polynucleotide of Claim 34, which is capable of replication.

Claim 43 (Previously Presented): The isolated polynucleotide of Claim 34, which is capable of replication in a coryneform bacterium.

Claim 44 (Previously Presented): A vector comprising the isolated polynucleotide of Claim 34.

Claim 45 (Previously Presented): A vector comprising the isolated polynucleotide of Claim 37.

Claim 46 (Previously Presented): A host cell comprising the isolated polynucleotide of Claim 34.

Claim 47 (Previously Presented): The host cell of Claim 46, which is a coryneform bacterium.

Claim 48 (Previously Presented): The host cell of Claim 46 which is *Corynebacterium glutamicum*.

Claim 49 (Previously Presented): A host cell comprising the isolated polynucleotide of Claim 37.

Claim 50 (Previously Presented): A host cell comprising multiple copies of the isolated polynucleotide of Claim 34.

Claim 51 (Previously Presented): A method for making a polypeptide having methylene tetrahydrofolate reductase activity comprising expressing the isolated polynucleotide of Claim 34.

Claim 52 (Previously Presented): The method of Claim 51, further comprising expressing said isolated polynucleotide under conditions which prolong the life of m-RNA, or under conditions which prevent the degradation of methylene tetrahydrofolate reductase.

Claim 53 (Previously Presented): An isolated polynucleotide which is fully complementary to the isolated polynucleotide of Claim 34.

Claim 54 (Previously Presented): An isolated polynucleotide which comprises at least 15 consecutive nucleotides of SEQ ID No: 1.

Claim 55 (Previously Presented): The isolated polynucleotide of Claim 34, further comprising a regulatory region, expression cassette, promoter and/or ribosome binding site upstream of said isolated polynucleotide which encodes a polypeptide having methylene tetrahydrofolate reductase activity.

Claim 56 (Currently Amended): An isolated polynucleotide that encodes a polypeptide having methylene tetrahydrofolate reductase activity and which comprises ~~comprising~~ SEQ ID No: 1 or a fragment of SEQ ID No: 1 ~~which encodes a polypeptide having methylene tetrahydrofolate reductase activity.~~

Claim 57 (Previously Presented): A vector comprising the isolated polynucleotide of Claim 56.

Claim 58 (Previously Presented): A host cell comprising the isolated polynucleotide of Claim 56.

Claim 59 (New): An isolated polynucleotide comprising a polynucleotide which is

- (a) SEQ ID No: 1 or a fragment of SEQ ID No: 1 that encodes a polypeptide having the enzymatic activity of methylene tetrahydrofolate reductase; or
- (b) is at least 90% identical to the nucleotide sequence of SEQ ID No: 1 and which encodes a protein having the enzymatic activity of methylene tetrahydrofolate reductase.

Claim 60 (New): A vector comprising the isolated polynucleotide of Claim 59.

Claim 61 (New): A host cell comprising the isolated polynucleotide of Claim 59.

Claim 62 (New): A method for making a polypeptide having methylene tetrahydrofolate reductase activity comprising expressing the isolated polynucleotide of Claim 59.